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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/894,399	06/28/2001	Chakkalamattam J. Paul	AUS920010380US1	6428

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Joseph R. Burwell
Law Office of Joseph R. Burwell
P.O. Box 28022
Austin, TX 78755-8022

EXAMINER

COFFY, EMMANUEL

ART UNIT

PAPER NUMBER

2157

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/894,399

Applicant(s)

PAUL ET AL.

Examiner

Emmanuel Coffy

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to the application filed on June 28th, 2001. Claims 1-11 are pending. Claims 1-11 are directed to a method and system for "Dynamic Redistribution of Remote Computer Boot Service in a Network Containing Multiple Boot Servers."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 5-11 are rejected under 35 U.S.C. §103(a) as being unpatentable over Sposato (US 6,463,530) in view of Emens et al. (US 6,606,643.)

Sposato teaches the invention substantially as claimed including a method and apparatus for booting a client computer connected to a network without a boot ROM and without an operating system. (See abstract).

Claim 1:

Referring to claim 1, it recites a method at a server for facilitating a remote boot process at a client, wherein the client and the server reside on a network, the method comprising the steps of: (See Fig. 1)

receiving, at the server, a dataset of load information associated with an execution load at a boot server; (See col. 3, lines 42-44).

receiving, at the server, a first file transfer request initiated by a remote boot process at the client; (See col. 4, lines 20-26).

Sposato teaches booting a client computer connected to a network without a boot ROM. (See abstract). Sposato does not explicitly suggest a list of multiple boot server addresses. However, Emens teaches a host that creates and maintains a list of addresses of available servers. In response to an initial information request from the client computer, the host server sends the list to the client computer. (See abstract, See also col. 6, lines 11-19).

Hence, it would have been obvious for an artisan of ordinary skill in the art to combine the teachings of Sposato with the list of addresses as disclosed by Emens because this would provide for automatically selecting a server in which execution load is received without problems arising from client or name-server caching.

Claim 3:

Referring to claim 3, it recites the method of claim 1, further comprising, prior to the step of receiving the first file transfer request:

receiving, at the server, a second file transfer request from the client; and
in response to receiving the second file transfer request, sending an initial network bootstrap program to the client, wherein the initial network bootstrap program, when executed at the client, generates the first file transfer request.

Sposato teaches booting a client computer connected to a network without a boot ROM. (See abstract). Sposato does not explicitly suggest this protocol. However,

Art Unit: 2157

Emens teaches the specific steps outlined by the limitations of this claim at col. 6, lines 20-40.

Hence, it would have been obvious for an artisan of ordinary skill in the art to combine the teachings of Sposato with the protocol as disclosed by Emens. This approach requires a busy server to return the address, instead of the actual response, and then the client is asked to resubmit its request to the new server.

Claim 5:

Claim 5 recites an apparatus whereas claims 1 and 2 recite a method. However, the limitations are the same and therefore, are rejected for the same reasons.

Claim 6:

Referring to claim 6, it recites the apparatus of claim 5 further comprising: third receiving means for receiving a boot service discover message from the client; and second sending means for sending a boot service acknowledgment message to the client in response to receiving the boot service discover message.

Sposato teaches booting a client computer connected to a network without a boot ROM. (See abstract). Sposato does not explicitly suggest this protocol. However, Emens teaches the specific steps outlined by the limitations of this claim at col. 6, lines 10-40.

Hence, it would have been obvious for an artisan of ordinary skill in the art to combine the teachings of Sposato with the protocol as disclosed by Emens because this approach would require a busy server to return the address, instead of the actual response, and then the client would be asked to resubmit its request to the new server.

Art Unit: 2157

Claim 7:

Referring to claim 7, it recites the apparatus of claim 5 further comprising: fourth receiving means for receiving a second file transfer request from the client; and third sending means for sending an initial network bootstrap program to the client in response to receiving the second file transfer request, wherein the initial network bootstrap program, when executed at the client, generates the first file transfer request.

Sposato teaches booting a client computer connected to a network without a boot ROM. (See abstract). Sposato does not explicitly suggest this protocol. However, Emens teaches the specific steps outlined by the limitations of this claim at col. 6, lines 10-40.

Hence, it would have been obvious for an artisan of ordinary skill in the art to combine the teachings of Sposato with the protocol as disclosed by Emens because this approach would require a busy server to return the address, instead of the actual response, and then the client is asked to resubmit its request to the new server.

Claim 8:

Claim 8 recites a data processing system whereas claims 1 and 2 recite a method. However, the limitations are the same and therefore, are rejected for the same reasons.

Claims 9 -11:

Claims 9 -11 recite a computer program product whereas claims 1 and 2 recite a method. However, the limitations are similar with nothing new and therefore, are rejected for the same reasons.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 2 is rejected under 35 U.S.C. §103(a) as being unpatentable over Sposato (US 6,463,530) in view of Emens and further in view of Grossman et al. (US 5,870,554.)

Sposato teaches the invention substantially as claimed including a method and apparatus for booting a client computer connected to a network without a boot ROM and without an operating system. (See abstract).

Claim 2:

Referring to claim 2, it recites the method of claim 1, further comprising, prior to the step of receiving the first file transfer request:

receiving, at the server, a boot service discover message from the client; and
in response to receiving the boot service discover message, sending a boot service acknowledgment message to the client.

Sposato teaches booting a client computer connected to a network without a boot ROM. (See abstract). Neither Sposato nor Emens explicitly suggest receiving and responding to a service discover message. However, Grossman teaches sending a FIND frame from the client to the network and receiving a FOUND frame from each server. (See abstract).

Hence, it would have been obvious for an artisan of ordinary skill in the art to combine the teachings of Sposato with the service discover message as disclosed by Grossman because this would provide for remote booting to a network with multiple servers of multiple types to allow identification and selection of any one of the multiple servers on the network by a client using a boot ROM.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. §103(a) as being unpatentable over Sposato (US 6,463,530) in view of Grossman et al. (US 5,870,554.) and in further view of O'Toole et al. (US 6,345,294).

Sposato teaches the invention substantially as claimed including a method and apparatus for booting a client computer connected to a network without a boot ROM and without an operating system. (See abstract).

Claim 4:

Referring to claim 4, it recites a method at a server for facilitating a remote boot process at a client, wherein the client and the server reside on a network, the method comprising the steps of:

receiving, at the server, a boot file transfer request initiated by a remote boot process at the client; (See col. 3, lines 57-59).

in response to receiving the boot file transfer request, sending a file to the client;
(See col. 3, lines 61-62).

Sposato teaches booting a client computer connected to a network without a boot ROM. Sposato does not explicitly teach monitoring execution load at the server. However, O'Toole discloses observing the network at col. 37, lines 23-27. Hence, it would have been obvious for an artisan of ordinary skill in the art to combine the teachings of Sposato with the monitor function as disclosed by O'Toole because this system would provide for a self-organizing distributed system.

Neither Sposato nor O'Toole teach or disclose generating a dataset to be sent to another server. However, Emens discloses sending server response to another server at col. 4, lines 45-53 (step g)). Hence, it would have been obvious for an artisan of ordinary skill in the art to combine the teachings of Sposato and the monitor function as disclosed by O'Toole with sending server response to another server as disclosed by Emens because this system would allow for automatically selecting a server in which a new server can be easily added to the existing replica without having to modify the existing infrastructure in any significant way.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Coffy whose telephone number is (703) 305-0325. The examiner can normally be reached on 8:30 - 5:00 P.M.

Art Unit: 2157

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703) 308-7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Emmanuel Coffy
Patent Examiner
Art Unit 2157

EC
September 29, 2004


ARIO ETIENNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100